

A Petition for Extension of Time, to extend the response period for the Office Action, dated June 25, 2002, for one additional month to October 25, 2002, is being filed concurrently.

Amendments to the claims are presented herein by presenting a complete set of pending claims, as amended, in clean form. Also, an Appendix entitled "Version With Markings to Show Changes Made," showing the current amendments to the claims is attached hereto.

Please amend the above-identified application as follows:

IN THE CLAIMS:

Please replace the previous version of the claims with the following clean version, wherein claims 1, 2, 15, 16-20, 25, 27, and 28 incorporate new amendments thereto, no claims have been cancelled, and ~~claims 31, 46~~ have been added.

Sub E1
D1

1. (Thrice Amended) A liquid crystal display device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display;
a power supply circuit which supplies electric power to the driving circuit, the power supply circuit including one element selected from the group consisting of a booster circuit and a DC/DC converter; and
a controller which inactivates at least part of the power supply circuit after writing on the liquid crystal display.

D2 Sub E1

2. (Twice Amended) A liquid crystal display device according to claim 1, wherein, if the power supply circuit includes a booster circuit, the controller inactivates the booster circuit after writing on the liquid crystal display.

3. A liquid crystal display device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display;
a data processing unit which is connected to the driving circuit, the data processing unit incorporating at least one central processing unit; and
a controller which inactivates at least part of an internal circuit of the at least one central processing unit after writing on the liquid crystal display.

4. A liquid crystal display device according to claim 3, wherein the at least one central processing unit is capable of operating in a sleep mode to inactivate part of the internal circuit by itself after writing on the liquid crystal display.

5. A liquid crystal display device according to claim 1, not comprising a power switch for turning on and off a main power source.

6. A liquid crystal display device according to claim 1, wherein the liquid crystal display uses liquid crystal which exhibits a cholesteric phase.

7. A liquid crystal display device according to claim 3, wherein:
the data processing unit incorporates a plurality of central processing units; and
the controller also inactivates at least part of an internal circuit of at least one of the
central processing units after writing on the liquid crystal display.
8. A liquid crystal display device according to claim 1, wherein unchangeable
information is displayed on the liquid crystal display.
9. A liquid crystal display device according to claim 1, further comprising an
operation section with which a user is capable of making an input,
wherein writing on the liquid crystal display is carried out in accordance with the
input made with the operation section.
10. A liquid crystal display device according to claim 9, wherein inactivation
of at least part of the power supply circuit is inhibited while an input is being continuously
made with the operation section.
11. A liquid crystal display device according to claim 1, further comprising a
receiving circuit which receives a signal from outside,
wherein information about reception of a signal at the receiving circuit is displayed
on the liquid crystal display.
12. A liquid crystal display device according to claim 1, wherein the controller
inactivates at least part of the power supply circuit immediately after writing on the liquid
crystal display.
13. A liquid crystal display device according to claim 1, wherein the controller
inactivates at least part of the power supply circuit a specified time after writing on the
liquid crystal display.
14. A liquid crystal display device according to claim 1, wherein the controller
is capable of operating in a first mode to inactivate at least part of the power supply circuit

immediately after writing on the liquid crystal display and in a second mode to inactivate at least part of the power supply circuit a specified time after writing on the liquid crystal display.

Sub E1
D3

15. (Twice Amended) A portable electronic device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display;
a power supply circuit which supplies electric power to the driving circuit, the power supply circuit including one element selected from the group consisting of a booster circuit and a DC/DC converter;
a controller which inactivates at least part of the power supply circuit after writing on the liquid crystal display; and
a casing which encases the liquid crystal display, the driving circuit, the power supply circuit and the controller.

16. (Twice Amended) A method for driving a liquid crystal display device provided with a liquid crystal display which uses reflective type liquid crystal with a memory effect, said method comprising the step of:
after writing on the liquid crystal display, inactivating at least part of a power supply circuit which supplies electric power to a driving circuit which performs writing on the liquid crystal display, the power supply circuit including one element selected from the group consisting of a booster circuit and a DC/DC converter.

17. (Once Amended) A method for driving a liquid crystal display device according to claim 16, wherein at least part of the power supply circuit is inactivated immediately after writing on the liquid crystal display.

18. (Once Amended) A method for driving a liquid crystal display device according to claim 16, wherein at least part of the power supply circuit is inactivated a specified time after writing on the liquid crystal display.

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19. (Once Amended) A portable electronic device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display;
a power supply circuit which supplies electric power to the driving circuit;
a controller which inactivates at least part of the power supply circuit after writing on the liquid crystal display; and
a casing which encases the liquid crystal display, the driving circuit, the power supply circuit and the controller,
wherein the controller also inactivates at least part of an internal circuit of a data processing unit after writing on the liquid crystal display.

D4

20. (Once Amended) A method for driving a liquid crystal display device provided with a liquid crystal display which uses reflective type liquid crystal with a memory effect, said method comprising the steps of:
after writing on the liquid crystal display, inactivating at least part of a power supply circuit which supplies electric power to a driving circuit which performs writing on the liquid crystal display, the power supply circuit including one element selected from the group consisting of a booster circuit and a DC/DC converter, and
inactivating at least part of an internal circuit of a data processing unit which is connected to the driving circuit.

21. A liquid crystal display device according to claim 7, wherein:
the controller inactivates at least part of an internal circuit of at least one of the central processing units and keeps the remaining one(s) of the central processing units active.

22. A liquid crystal display device according to claim 21 wherein:
the at least one central processing unit of which at least part of an internal circuit is inactivated by the controller is higher in processing ability than the remaining one(s) of the central processing units.

23. A portable electronic device according to claim 15, wherein:
the reflective type liquid crystal exhibits a cholesteric phase.

24. A portable electronic device according to claim 15, wherein:
the liquid crystal display includes a pair of substrates accommodating the reflective
type liquid crystal therebetween.

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25. (Once Amended) A portable electronic device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory
effect;
a driving circuit which performs writing on the liquid crystal display;
a power supply circuit which supplies electric power to the driving circuit;
a controller which inactivates at least part of the power supply circuit after writing
on the liquid crystal display; and
a casing which encases the liquid crystal display, the driving circuit, the power
supply circuit and the controller,
wherein the liquid crystal display includes a pair of substrates accommodating the
reflective type liquid crystal therebetween, and
wherein at least one of the substrates is flexible.

26. A portable electronic device according to claim 24, wherein:
a plurality of resin pillars are provided between the substrates.

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D6

27. (Once Amended) A portable electronic device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory
effect;
a driving circuit which performs writing on the liquid crystal display;
a power supply circuit which supplies electric power to the driving circuit;
a controller which inactivates at least part of the power supply circuit after writing
on the liquid crystal display; and

D6 concl.
a casing which encases the liquid crystal display, the driving circuit, the power supply circuit and the controller,

wherein the reflective type liquid crystal includes a plurality of display areas.

Sub E1
D7
28. (Once Amended) A liquid crystal display device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display;
a data processing unit which is connected to the driving circuit;
a power supply circuit which supplies electric power to the driving circuit and the data processing unit, the power supply circuit including one element selected from the group consisting of a booster circuit and a DC/DC converter; and
a controller which inactivates at least part of the power supply circuit and/or at least part of an internal circuit of the data processing unit after writing on the liquid crystal display, thereby inhibiting electric power supply to the liquid crystal display.

29. A liquid crystal display device according to claim 28, wherein:
power supply from the power supply circuit to the driving circuit is inhibited by the controller.

30. A liquid crystal display device according to claim 28, wherein:
the reflective type liquid crystal exhibits a cholesteric phase.

Sub E1
D8
31. (New) A portable electronic device according to claim 15,
wherein the controller also inactivates at least part of an internal circuit of a data processing unit after writing on the liquid crystal display.

32. (New) A method for driving a liquid crystal display device according to claim 16, further comprising the step of inactivating at least part of an internal circuit of a data processing unit which is connected to the driving circuit.

33. (New) A portable electronic device according to claim 24, wherein at least one of the substrates is flexible.

34. (New) A portable electronic device according to claim 15, wherein the reflective type liquid crystal includes a plurality of display areas.

35. (New) A liquid crystal display device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display in response to a received write command;
a power supply circuit which supplies electric power to the driving circuit; and
a controller which inactivates at least part of the power supply circuit after writing on the liquid crystal display and reactivates the inactivated part of the power supply upon receiving another write command.

36. (New) A liquid crystal display device according to claim 35, wherein the power supply circuit includes one element selected from a group consisting of a booster circuit and a DC/DC converter.

37. (New) A liquid crystal display device according to claim 35, wherein the controller inactivates at least a part of the power supply circuit substantially immediately after writing on the liquid crystal display.

38. (New) A portable electronic device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display in response to receipt of a write command;
a power supply circuit which supplies electric power to the driving circuit;

a controller which inactivates at least part of the power supply circuit after writing on the liquid crystal display and which reactivates the inactivated part of the power supply after another write command is received; and

a casing which encases the liquid crystal display, the driving circuit, the power supply circuit and the controller.

39. (New) A portable electronic device according to claim 38, wherein the power supply circuit includes one element selected from the group consisting of a booster circuit and a DC/DC converter.

40. (New) A portable electronic device according to claim 38, wherein the controller inactivates at least a part of the power supply circuit substantially immediately after writing on the liquid crystal display.

41. (New) A method for driving a liquid crystal display device provided with a liquid crystal display which uses reflective type liquid crystal with a memory effect, said method comprising the step of:

after receiving a write command and writing on the liquid crystal display, inactivating at least part of a power supply circuit which supplies electric power to a driving circuit which performs writing on the liquid crystal display, and reactivating the inactivated part of the power supply upon receipt of another write command.

42. (New) A method for driving a liquid crystal display device according to claim 41, wherein the power supply circuit includes one element selected from the group consisting of a booster circuit and a DC/DC converter.

43. (New) A method for driving a liquid crystal display device according to claim 41, wherein a controller inactivates at least a part of the power supply circuit substantially immediately after writing on the liquid crystal display.

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44. (New) A liquid crystal display device comprising:
a liquid crystal display which uses reflective type liquid crystal with a memory effect;
a driving circuit which performs writing on the liquid crystal display in response to a received write command;
a data processing unit which is connected to the driving circuit;
a power supply circuit which supplies electric power to the driving circuit and the data processing unit, and
a controller which inactivates at least part of the power supply circuit and/or at least part of an internal circuit of the data processing unit after writing on the liquid crystal display, thereby inhibiting electric power supply to the liquid crystal display, and thereafter reactivating the inactivated part of the power supply circuit and/or at part of the internal circuit of the data processing unit after receipt of another write command.

45. (New) A liquid crystal display device according to claim 44, wherein the power supply circuit includes one element selected from the group consisting of a booster circuit and a DC/DC converter.

46. (New) A liquid crystal display device according to claim 44, wherein the controller inactivates at least a part of the power supply circuit and/or at least a part of the internal circuit of the data processing unit substantially immediately after writing on the liquid crystal display.